

ABSTRACT

A waveguide configuration comprising a core, a first cladding, a second cladding and a buffer. The core includes an index of refraction and a shear velocity. The first cladding extends about the core, has a shear velocity that is less than that of the core and has an index of refraction which is less than the core. A second cladding extends about the first cladding and has a shear velocity which is greater than that of the first cladding. An optical mode of the waveguide configuration has an index of refraction greater than that of the second cladding. The buffer extends about the second cladding. The core comprises one of a rare-earth dopant and an undoped glass fiber. The first cladding is selected from the group consisting of: Boron doped glass fiber, Fluorine doped glass fiber, and, Boron and Fluorine doped glass fiber. The second cladding has a higher relative doping concentration of Boron, Fluorine, or Boron and Fluorine than the first cladding and also contains Aluminum.